

App. No. 10/711,262  
Amendment dated December 8, 2005  
Reply to Office action of September 8, 2005

## **REMARKS**

### ***Status of Claims & Summary of Amendments***

1. Claims 1 through 21 were originally presented in this application. By Applicants' preliminary amendment of November 1, 2004, claims 1 through 10 and 13 through 21 were cancelled and new claims 22 through 27 were added. Claims 11 and 12 were amended in the same preliminary amendment. Claims 11, 12, and 22 through 27 have been examined in the present Office action. Claims 11, 12, 22, 23, 24, and 27/23 have been allowed. Claims 25, 26, 27/11, 27/12, 27/22, and 27/24 have been rejected for various reasons as set forth in the Office action.
2. In this paper, multi-dependent claim 27 has been cancelled and rewritten as five distinct new dependent claims (new dependent claims 28, 29, 30, 31, and 32). Moreover, claim 25 has been amended to more particularly point out and distinctly claim the inventive material of the instant invention. Claims 11, 12, 22 through 26, and 28 through 32 remain pending.

### ***Specification/Claim Objections***

3. The abstract of the disclosure was objected to because it was not directed to the invention as claimed. Correction was required. Applicants have submitted a new abstract herein. The new abstract is directed to the claims as required by the Examiner.

### ***Claim Rejections - 35 U.S.C. § 102***

4. Claims 25, 27/11, 27/12, and 27/22, stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Inoue et al.* (JP 05-273425 A). With regard to claim 25, the Examiner states: "Referring for example to the discussion of Fig. 3B in the machine translation (esp. para. [0035], Inoue et al disclose a DLC film (layer atop cladding layer 20) characterized by having refractive indices (of core composition 22, and cladding compositions 21 and 23) distributed in a pattern oriented within the plane of the film." With regard to claims 27/11, 27/12, and 27/22, the Examiner states: "process limitations cannot impart patentability to a product claim where the product is not patentably distinguished over the prior art."
5. Applicants respectfully traverse this rejection to the extent that it is relevant to amended claim 25. Claimed 25 has been amended to recite

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A DLC film characterized by having refractive indices distributed in a pattern oriented within the plane of the film, the DLC film including a plurality of qualitatively transformed regions in which the refractive indices are changed."

Support for this amendment may be found, for example, in Fig. 10 and paragraphs [0087] and [0088] of the present specification, such that no new matter is entered and no new search should be required. The polarizer shown on Fig. 10 clearly includes a plurality of regions 11-1 in which the refractive index has been changed.

6. Applicants respectfully submit that claim 25, as amended, is patentably distinct from the prior art of record for a number of reasons. First, *Inoue et al.* disclose two films having distinct refractive indices rather than a single film having a "plurality of qualitatively transformed regions in which the refractive indices are changed" as recited in amended claim 25. That *Inoue et al.* disclose two films is clear from the abstract, which states in part:

In the process for production of thin films 21, 22 of diamond-like carbon=DLC . . . in such a manner that a substrate material is held negative and changing the hydrogen concn., refractive index and hardness of the films 21, 22 by adjusting the potential . . . .

(Emphasis added.) Clearly, two distinct films, having distinct hydrogen concentrations, refractive indices, and hardnesses are disclosed. Moreover, the two films 21, 22 are disclosed to have distinct thicknesses (1.8 and 1.9 microns) in paragraph [0035]. That two films are in view is still further supported by the statement that the films are fabricated at different electrical potentials (abstract and paragraph [0035]). Notwithstanding that the two films 21 and 22 even could be considered a single film, there is still nothing in *Inoue et al.* that teaches or even suggests a DLC film having a plurality of qualitatively transformed regions in which the refractive indices are changed as recited in amended claim 25. On the contrary, *Inoue et al.* would then teach a single circular core region 22 deployed in a single clad region 21, 23. At most such a film would include only a single transformed region. Accordingly, Applicants respectfully submit that independent claim 25, as amended, is distinct from the prior art of record.

7. Regarding claims 27/11, 27/12, and 27/22, multi-dependent claim 27 has been cancelled as stated above in section 2. Claims 27/11, 27/12, and 27/22 have been rewritten as new claims 28, 29, and 30. Moreover, similar to amended claim 25, claims 28, 29, and 30 also further recite: "the DLC film including a plurality of qualitatively transformed regions in which the refractive indices are changed." Accordingly, Applicants submit that new claims 28, 29, and 30 are patentably

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distinct from the prior art of record for the same reasons amended claim 25 as described above in sections 5 and 6.

8. Claims 26 and 27/24 also stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Inoue et al.* With regard to claims 26 and 27/24, the Examiner states:

*Inoue et al.* disclose that the refractive index pattern can be inclined with respect to the plane of the film (para. [0036]). The examiner believes that such inclination fairly constitutes a 'bias with respect to the thickness of the film', and a refractive index structure 'sloping with respect to the film's thickness', as variously recited.

9. Applicants respectfully traverse this rejection. As stated above, the Examiner asserts that Paragraph [0036] of *Inoue et al.* teaches a refractive index pattern that is "inclined" with respect to the plane of the film. In the machine translation relied upon by the Examiner, the term 「勾配」 has been rendered as "inclination," which has led the Examiner to assert that *Inoue et al.* teach an inclined refractive index pattern. On the contrary, Applicants' undersigned representative (who has translated Japanese patent documents into English for seven years) respectfully submits that the term 「勾配」 correctly should be translated as "gradient". As such, paragraph [0036] does not teach an "inclined" distribution of refractive indices, but rather a refractive index that changes gradually (i.e., along a "gradient") in the plane of the films (i.e., from film 21 to film 22). That a gradient is in view is clearly supported by the latter half of paragraph [0036], in which the machine translation states: "especially the core section may be changed gradually or continuously by changing gradually or continuously the dielectric constant of the dielectric prepared in the grounding-electrode . . ." (paragraph [0036], emphasis added). In summary, *Inoue et al.* is void of any teaching regarding a DLC film having refractive indices distributed in a pattern oriented on a bias with respect to the thickness of the film as recited in claim 26. Applicants therefore submit that claim 26 is patentably distinct over the prior art of record.
10. Regarding claim 27/24, multi-dependent claim 27 has been cancelled as stated above in paragraph 2. Claim 27/24 has been rewritten as new claim 32. Applicants submit that new claim 32 is patentable over the prior art of record for the same reason as claim 26 as described above in section 9.
11. Allowed claim 27/23 has been cancelled and rewritten as claim 31. Applicants submit that claim 31 is allowable for the same reasons as previously allowed claim 27/23.

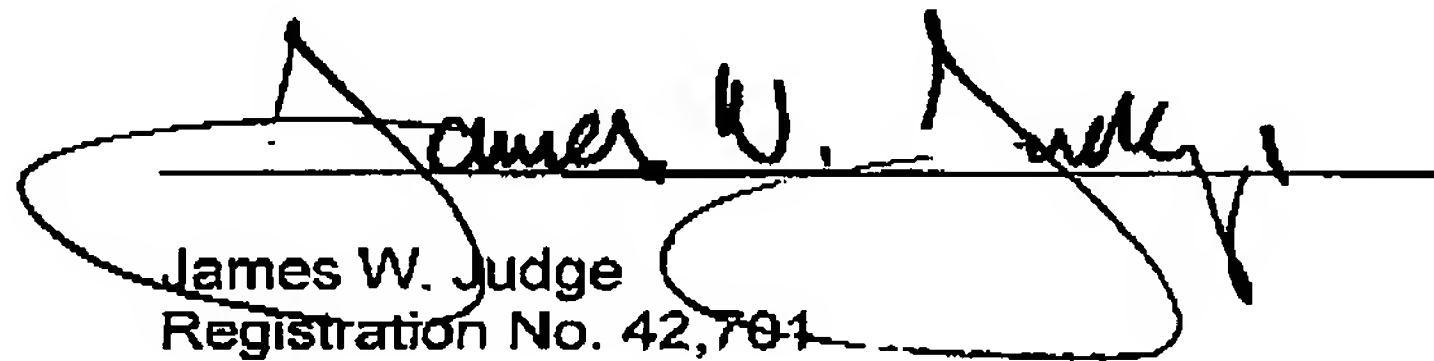
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12. Applicants have reviewed the art made of record by the Examiner but not applied to the claims, and believe that these references are less relevant and/or merely cumulative of the reference that the Examiner has applied to the pending claims.

Accordingly, Applicants courteously urges that this application is in condition for allowance. Reconsideration and withdrawal of the rejections is requested. Applicants request reconsideration and allowance of claims 25, 26, and 28 through 32. Favorable action by the Examiner at an early date is solicited.

Respectfully submitted,

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